

L 00358-66
ACCESSION NR: AT5013286

course of the investigation." Orig. art. has: 42 formulas, 3 figures, and 3 tables.

ASSOCIATION: Vychislitel'nyy tsentr, Moskovskiy universitet (Computer Center, Moscow University)

SUBMITTED: 00

ENCL: 00

SUB CODE: ME, MA

NO REF SOV: 009

OTHER: 003

Cord

2/2

BULATSKIY, N.P....

Configuration and properties of unsaturated acids and their derivatives. Oxidation of octadecenoic acids and their esters. A. K. Plisov and N. P. Bulatskiy (Odessa Univ.). *Zhur. Obshchei Khim.* 23, 1749-52 (1953); cf. C.A. 48, 6961b.—Oleic and petroselinic acids are oxidized by KMnO_4 in Me_2CO more rapidly than elaidic and petroselinic acids. The result is in accord with the concept of steric hindrance at the *trans*-double bond. The reactions were followed by titration of the unchanged KMnO_4 in mixts. kept at either 16 or 20°. G. M. Kosolacoff.

Lab. Org. Chem., Odessa U.

Bulatskiy, N. P.

USSR/Chemistry - Oxidation

Card 1/1 Pub. 151 - 23/37

Authors : Bulatskiy, N. P.

Title : About the oxidation of 9,10-octadecene acid esters

Periodical : Zhur. ob. khim. 24/10, 1835-1837, Oct 1954

Abstract : The oxidation of 9,10-octadecene acid esters was investigated at various temperatures and ester and oxidizer concentrations. It was found that the rate of oxidation depends upon the spatial (stereochemical) structure of the molecule and the structure of the alcohol radicals included in the composition of the ester. An increase of the alcohol radical in the ester molecule leads to a reduction in the rate of oxidation. Two USSR references (1935 and 1953). Tables.

Institution : State University, Odessa

Submitted : January 22, 1954

BULATSKIY, N. P. and ROZANOV, A. Ya.

"Problem of the Effect of the Products of Decomposition of Tagged Thiamine on the Accuracy of Its Determination in Urine", a report presented at the Scientific Conference Devoted to the Application of Radioactive Substances in Medicine, Odessa Medical Institute, December 1954, Arkhiv, Patol., No. 2, 1956

Abstract:

It is known that thiamine tagged with sulphur (S^{35}) is partially destroyed in the human organism, and that the products of its decomposition, which contain radioactive sulfur, are secreted with the urine. When the thiamine S^{35} which is being estimated on the basis of radioactivity is isolated from the urine by Yansen's method as modified by Yelisseyeva, an error can result. The authors of the report showed that the cause of such an error may be that the radioactive products of the decomposition of thiamine S^{35} are partially extracted from the urine in the isobutyl alcohol together with thiochrome. In this way, the greater the quantity of the products of decomposition which accompany thiamine in the urine the greater the percentage of error.

USSR/Human and Animal Physiology (Normal and Pathological)
Metabolism. Vitamins.

T

Abs Jour : Ref Zhur Biol., No 6, 1959, 26305

Author : Rozanov, A.Ya., Dulatskiy, N.P., Tsuverkulov, D.A.,
Shcherbakova, E.V.

Inst : -

Title : The Study of Radioactive Thiamin Metabolism in an
Animal Organism.

Orig Pub : Tr. Vses. konferentsii po med. radiol. Eksperim. med.
radiol. M., Medgiz, 1957, 283-287

Abstract : It was discovered in a study of thiamin (vitamin B₁)
metabolism in the organism of rats with the aid of thia-
mine-S³⁵ (I) that S³⁵ I in its decay in the organism of
animals is included in tissue proteins. It was shown
in experiments with methionine-S³⁵ that I cannot form in
the organism of a rat from sulphur-containing amino-acids
and products of B₁ decay. I was introduced to dogs, guinea

Card 1/2

USSR/Human and Animal Physiology (Normal and Pathological)
Metabolism. Vitamins.

T

Abs Jour : Ref Zhur Biol., No 6, 1959, 26305

pigs and rats in order to discover the final products of I decay and excretion with urine of sulphates, neutral S and unchanged I was studied. It was determined that basically sulphates are excreted. One of the ways of irreversible decomposition of B_1 in the organism begins with their resulfonation reaction, as a result of which sulphur B_1 is transferred to amino-acids which later oxidize to sulphates. -- A.O. Natanson

Card 2/2

- 21 -

CODARI

ABS. JOUR.

AUTHOR

INST.

TITLE

ORIG. PUB.

ABSTRACT

: USSR Pharmacology and Toxicology. Narcotics and
Hypnotics
: Rzhbiol., No. 1 1959, No. 4410
: Rozanov, A. Ya.; Eulatskiy, N. P.
: Effect of Sleep Induced by Medinal on the Excre-
tion of Radioactive Thiamine (Aneurin) with the
Farmakol. i toksikologiya, 1958, 21, No 2, 61-64
: Rats which three days before the experiments had
received each 40 ml. of milk daily and 1 mg. of
thiamine bromide subcutaneously, were each in-
jected 100 mcg/g of S35-thiamine (ST) and simul-
taneously 0.2 g/kg of medinal. It was shown that
two times less unaltered ST than in the control
is excreted with the urine of the experimental
animals; this was due on one hand to somewhat

1/2

10

BULATSKIY, N.P. [Bulats'kiy, N.P.]; LEVITSKIY, A.P. [Levyts'kiy, A.P.]

Substrate specificity of animal lipases and methods for
determining their activity. Ukr.biokhim.zhur. 34 no.6:924-936
'62. (MIRA 16:4)

1. Kafedra biokhimii Odesskogo meditsinskogo instituta.
(LIPASE)

BULATSKIY, N.P.; LEVITSKIY, A.P.

Extraction and bichromate micromethod for the determination of
lipase activity. Vop. med. khim. 9 no.48426-429 J1-Ag'63
(MIRA 1784)

1. Kafedra biokhimii Odesskogo meditsinskogo instituta imeni
Pirogova.

LEVITSKIY, A.P. [Levyts'kyi, A.P.]; BULATSKIY, N.P. [Bilats'kyi, N.P.]

Extraction-dichromate micromethod for determining higher
fatty acids. Ukr. biokhim. zhur. 35 no.1:120-128 '63

(MIRA 17:5)

1. Department of Biochemistry of Odessa State Medical Institute.

Bylady, K.

Consumption of chemicals in Czechoslovakia. Karol Bylady. *Przemysl Chemic.* 4, 102 (1948). New trends in consumption and marketing of domestic and imported chemicals are described.

Frank Gomet

12

ASAC VIA INTERNATIONAL LITERATURE CLASSIFICATION

BULAU, Maria

Some particular networks in a bidimensional space with affine connection. Studii mat Iasi 12 no.2:379-384 '61.

"APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307420018-6

APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307420018-6"

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APPROVED FOR RELEASE: 06/09/2000

CIA-RDP86-00513R000307420018-6"

BULAUKA, A.G.

Extent of surface evaporation from small bodies of water in White
Russia. Vestsi AN BSSR no.4:140 J1-Ag '54. (MIRA 8:9)
(White Russia--Evaporation)

BULAU, Maria

On certain transformations which leave invariant the components of Ricci symmetrized tensor. Studii mat Iasi 13 no.2:351-360 '62.

BULAVA, M.M.
ANUFRIYEV, V.Ye., dotsent, kand.tekhn.nauk; KURDYUMOV, M.D., inzh.,
retsensent; SMYSLOV, V.V., kand.tekhn.nauk, retsensent; KOSYURA,
G.G., kand.tekhn.nauk, retsensent; BULAVA, M.M., dots., retsensent;
DRAINNIKOV, A.M., doktor geol.-mineralog.nauk, retsensent; KIRICHKO,
I.M., dotsent, retsensent; POBEGAYLO, I.M., inzh., retsensent;
UCHITEL', I.Z., red.; GUROVA, O.A., tekhn.red.

[Hydraulic engineering structures for cities] Gorodskie gidro-
tekhnicheskie sooruzhenia. Moskva, Izd-vo M-va kommun.khoz.,
1957. 264 p. (MIRA 11:7)
(Hydraulic engineering)

KOLOBANOV, S.K.; PEREVALOV, V.G.; BULAVA, M.N., redaktor; MINEVICH, I.,
tekhnicheskiiy redaktor.

[Supplying water to construction sites] Vodosnabzhenie stroitel'-
nykh ploshchadok. Kiev, Gos. izd-vo tekhn. lit-ry USSR, 1953.
140 p. (MIRA 8:2)
(Water supply) (Building)

BULAVA, Mikhail Nikiforovich; DANILENKO, Mikhail Dmitriyevich;
ALEKSANDROVSKIY, A.ya., red.; LEUSHCHENKO, N.L., tekhn.red.

[Principles of water-supply and sewerage construction] Osnovy
vodoprovodno-kanalizatsionnogo stroitel'stva. Kiev, Gos-
stroizdat USSR, 1962. 171 p. (MIRA 16:2)
(Water---Distribution) (Sewerage)

С. К. КОЛОБАНОВ

KOLOBANOV, S.K.; BULAVA, M.N.; DANILENKO, M.D.; PYARTLI, A.P.;
ALEKSANDROVSKIY, A., red.; IOAKIMIS, A., tekhn.red.

[Plumbing; planning and installing] Sanitarno-tekhnicheskoe
oborudovanie zdani; proektirovanie i montazh. Kiev, Gos.
izd-vo lit-ry po stroit.i arkhitekt.USSR, 1957. 276 p. (MIRA 11:1)
(Plumbing)

KUL'SKIY, Leonid Adol'fovich; BULAVA, Mikhail Nikiforovich; GORONOVSKIY, Igor' Trifil'yevich; SMIRNOV, Pavel Ivanovich; KOMENDANT, K.P., red.; SERAFIN, V.T., tekhn. red.

[Designing and calculating equipment for cleaning water supply lines] Proektirovanie i raschet ochistnykh sooruzhenii vodoprovodov. Kiev, Gos.izd-vo lit-ry po stroit. i arkhitekt. USSR, 1961. 355 p. (MIRA 15:2)
(Water-supply engineering)

BULAVA, V., inzh.

Tenacious meshing. Izobr.i rats. no.6:37 Je '60. (MIRA 14:2)
(Gearing)

BULAVA, V.P.

KURAYEV, A.V.; SEMENOV, P.L.; BLEYZ, N.G.; BULAVA, V.P.; VYAZ'MIN, V.A.;
GOLUBEV, B.S.; DYSHMAN, B.M.; KARLIN, B.S.; KAYUKOV, G.I., KUGEL',
N.V.; MASHATIN, V.I.; RAGUSKAYA, L.F.; RUBINSHTEYN, S.M.; SETRANOV,
A.B.; TARASOV, L.A.; FEDOROVA, A.A.; FEDOROV, L.N.; TSEPKIN, M.F.;
SHAYEVICH, A.G.; VASIL'YEVA, I.A., red. izd-va; TIKHANOV, A.Ya.,
tekhn. red.

[ZIL-158 and ZIL-158A motorbuses; instructions for operation] Avtobusy
ZIL-158 i ZIL-158A; instruktsiia po ekspluatatsii. Moskva, Gos.
nauchno-tekhn. izd-vo mashinostroit. lit-ry, 1958. 193 p.
(MIRA 11:7)

1. Moskovskiy avtomobil'nyy zavod.
(Motorbuses)

TROFIMOV, V.S.; BULAVA, Yu.V.

Quaternary diamond placers of the Siberian Platform. Trudy Kom.-
chetv.per. no.26:7-19 '61. (MIRA 15:3)
(Siberian Platform--Diamonds)

BULAVA, Yu.V.; TROFIMOV, V.S.

Some characteristics of the amber accumulation in the Oligocene
sediments of the Zemlandskii Peninsula in Kaliningrad Province
(Baltic amber province). Izv.vys.ucheb.zav.; geol. i razv. 6
no.11:93-104 N '63. (MIRA 18:2)

1. Geologicheskii institut AN SSSR.

BULAVA, Yu.V.; TROFIMOV, V.S.

Some characteristics of the distribution of heavy minerals
in recent beach sediments on the northern coast of the
Black Sea. Biul. Kom. chetv. per. no.30:58-71 '65.

(MIRA 19:2)

Bulavas, Yu. I.

BELYUKAS, K.K., doktor geograficheskikh nauk, redaktor; BULAVAS, Yu.I.,
kandidat istoricheskikh nauk, redaktor; KOMAR, I.V., ~~kandidat~~
geograficheskikh nauk, redaktor; KONOVALYUK, G.A., redaktor;
GILYKH, D.A., tekhnicheskiiy redaktor

[Lithuanian S.S.R.] Litovskaya SSR. Moskva, Gos. izd-vo geogr.
lit-ry, 1955. 389 p.
(MLRA 9:3)

1. Deystvitel'nyy chlen AN Litovskoy SSR, (for Belyukas) 2. Chlen-
korrespondent AN Litovskoy SSR, (for Bulavas) 3. Starshiy nauchnyy
sotrudnik Instituta geografii AN SSSR, (for Komar)
(Lithuania--Geography)

BULIVAS, 44 I.

"Creation of Better Types of Barley for the Lithuanian S.S." Cand
Agr Sci, Lithuanian Agricultural Acad, Kaunas, 1953. (RZhBiol, No 1, Sep 54)

SO: Sum 432, 29 Mar 55

BULAVENKO, N., inzh.

New method for manufacturing tinned copper wire. From Arm.
4 ho. 10:44 0 '61. (MIRA 14:11)

(Electric wire)
(Tinning)

S/0286/64/000/011/0085/0085

ACCESSION NO: AP4040662

AUTHOR: Krasutskiy, V. P.; Bulavenko, N. F.; Grigor'yev, D. Ye.; Gayevoy, P. I.; Kozlov, V. N.; Degurko, I. A.

TITLE: A programming mechanism for dropping loads from aircraft. Class 62, No. 163081

SOURCE: Byul. izobr. i tovar. znakov, no. 11, 1964, 85

TOPIC TAGS: aircraft, airplane, programmed airdrop, automatic cargo release, programmed load release, preset load release, airdrop, bomb bay

ABSTRACT: This author's certificate introduces a programming mechanism for dropping loads from aircraft. The device contains a countershaft located in the housing of the mechanism with cams and a position adjuster, and a terminal circuit breaker unit. In order to feed electrical signals according to preset programs to the terminal circuit breakers for dropping the containers in various patterns are connected through the countershaft cams with the terminal circuit breakers for dropping and blocking the load containers. The countershaft is connected with a by-pass clutch and a control

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ACCESSION NO: AP4040662

pedal for engagement and rotation of the shaft and through a two-step worm transmission speed reducer with an electric motor for rotation of the shaft at a previously set speed which assures a time delay for dropping of The loads.

ASSOCIATION: none

SUBMITTED: 15 May 63

DATE ACQ: 25 Jun 64

ENCL: 01

SUB CODE: IE, AC

NO REF SOV: 000

OTHER: 000

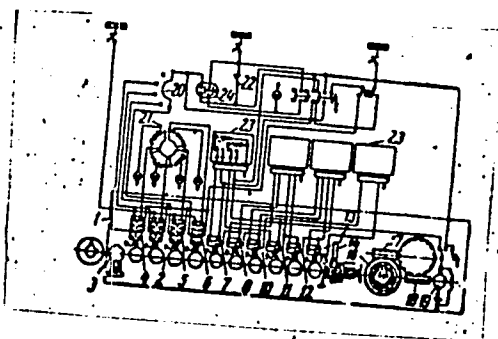
Card

2/3

ACCESSION NO: AP4040662

ENCLOSURE: 01

1--mechanism housing; 2--camshaft; 3--position adjuster; 4-13--terminal circuit breakers; 14--control pedal; 15--control pedal return spring; 16--by-pass clutch; 17--first worm transmission of the speed reducer; 18--second worm transmission of the speed reducer; 19-- electric motor; 20-- unit for setting the drop pattern; 21-- signaler for the presence of the loads; 22--power supply circuit breaker; 23--terminal parachute holder units; 24-- emergency load release button



Card 3/3

L 41025-65

ACCESSION NR: P5008586

S/0286/65/000/006/0132/0132

AUTHORS: Bulavunko, N. F.; Grigor'yev, D. Ye.; Krasutskiy, V. P.

TITLE: A pulsed electric mechanism. Class 62, No. 158804

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 6, 1965, 132

TOPIC TAGS: pulsed electric mechanism, aircraft equipment, step function

ABSTRACT: This Author Certificate presents a pulsed electric mechanism for the drive of aircraft apparatus and equipment. The mechanism includes an electric motor with a reducing gear, position terminal releases, and a rotation converter. To accomplish a stepped (intermittent) motion, the unit is provided with a self-breaking mechanism consisting of an electromagnetic clutch, a drum with a spring return connected to the drum cam of the intermediate position release, and a drive for the assembly of the electric motor shaft motion.

ASSOCIATION: none

SUBMITTED: 13Jul62

ENCL: 00

SUB CODE: AC, EE

NO REF SOV: 000

Card 1/1

OTHER: 000

112-57-8-16193

Translation from: Referativnyy zhurnal, Elektrotehnika, 1957, Nr 8, p 18 (USSR)
AUTHOR: Bulavenko, N. P.

TITLE: Improving the Quality of Installation-Type Aluminum-Conductor Wires
(Suggestion of S. I. Akopdzhanyan) (Uluchsheniye kachestva ustanovochnykh
provodov s alyuminiyevoy zhiloy)

PERIODICAL: Sb. rats. predlozh. M-vo elektrotekhn. prom-sti SSSR (Collection
of Efficiency Suggestions, Ministry of the Electrical-Engineering Industry,
USSR), 1956, Nr 6(64), pp 12-14

ABSTRACT: The quality of aluminum-conductor 2.5 and 4 mm² wires depends largely on the quality of annealing and on how evenly the wire is wound on pay-off reels. Rewinding the wire on a conventional rewinding machine is often accompanied by considerable waste because the irregularly annealed coils of aluminum wire cross and tangle during the rewinding process. Whipping of individual turns of wire on the reel causes considerable outage of the cold-press insulating machines. To eliminate these drawbacks, it was suggested that the aluminum wire be wound onto standard aluminum spools from MR-9 drawing

Card 1/2

112-57-8-16193

Improving the Quality of Installation-Type Aluminum-Conductor Wires

benches rather than onto takeup coils. These spools were installed in all spool apparatus of drawing benches for aluminum wire of 1.8-2.49 mm diameter. Spools were mounted on the spool apparatus by a simple device made of pressed wood. Each standard spool can accommodate 2.5 km of 1.8 mm wire or 2.0 km of 2.24 mm wire. On the same spools, the wire goes into the conveyor-type annealing furnace. As the radial thickness of the winding is rather small (35-40 mm), the wire is annealed uniformly. To eliminate rewinding the wire from the spools onto the payoff reels of the cold presses, special endpieces have been developed that permit mounting the spools on the existing payoff reels of the presses. At the "Yerevankabel" plant, this procedure has cut aluminum wire waste in half, raised the quality of the wire, eliminated the necessity for an intermediate rewinding of the wire, and increased productivity of the cold presses by 10%.

A. O. M.

Card 2/2

BULAVENTSEVA, V.I. (Moskva)

Treatment of mastitis with intratissue penicillin solution injections
and novocaine block in a polyclinic. Khirurgiia no.9:68 S '54.

(PENICILLIN, therapeutic use,

(MIRA 7:12)

mastitis, with procaine nerve block)

(ANESTHESIA, REGIONAL, in various diseases,

procaine nerve block in mastitis, with penicillin)

(PROCAINE, therapeutic use,

mastitis, nerve block, with penicillin)

(MASTITIS, therapy,

penicillin with procaine nerve block)

Country : USSR

Category: Cultivated Plants. Commercial. Oil-Bearing.
Sugar-Bearing.

M

Abs Jour: RZhBiol., No 22, 1958, No 100398

Author : Bulavin, A.I.

Inst : Khar'kov University

Title : The Significance of Preparatory Vernalization
in Growing Transplanted Sugar Beets During
Winter in Greenhouses.

Orig Pub: Uch. zap. Khar'kovsk. un-t, 1957, 90, Tr.
N.-1. in-ta biol. i biol. fak., 30, 109-113

Abstract: In 1952, experiments were carried out at Khar'kov
University in the greenhouse cultivation of
sugar beet seeds from roots which underwent pre-

Card : 1/4

Country : USSR

Category: Cultivated Plants. Commercial. Oil-Bearing.
Sugar-Bearing.

M

Abs Jour: RZhBiol., No 22, 1958, No 100398

paratory vernalization of 20 and 42 days.
In the first variant, the roots were trans-
planted on 5 November. Until the sprouting
of the rosettes, the temperature in the green-
house was maintained at the level of 18-20°
and after the formation of the rosettes -
at 8-10°. In the second variant, the transplant-
ing was done 22 days later; the temperature
before the beginning of bolting was 8-12°.
In both variants of the experiment, 3 supple-
mentary dressings with nutrients were applied
(before bolting, blossoming and in the period
of blossoming). All plants lagging in their

Card : 2/4

M-126

Country : USSR

Category: Cultivated Plants. Commercial. Oil-Bearing.
Sugar-Bearing.

Abs Jour: RZhBiol., No 22, 1958, No 100398

development were subjected to 3 top dressing treatments by means of spraying with 3% solution of KH_2PO_4 at the rate of 15 cubic centimeters per plant (before blossoming, during blossoming, during ripening). During the dark period of the day, the plants were illuminated with electric lamps at the rate of 300 watts per 1 square meter. Experiments demonstrated that the plants from the roots subjected before transplanting to 42-day vernalization, developed considerably faster than those from the roots of 20-day preparatory ver-

Card : 3/4

Country : USSR

Category: Cultivated Plants. Commercial. Oil-Bearing.
Sugar-Bearing.

M

Abs Jour: RZhBiol., No 22, 1958, No 100398

nalization, and produced earlier maturity
and a high yield of seeds. The seeds were
obtained with a large content of large-sized
seeds, and had an 8% higher germination. --
B.L. Klyachko-Gurvich

Card : 4/4

M-127

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

Author : Bulavin, A. I.

Inst : Khar'kov Agricultural Institute

Title : The Increase in Productivity and Saccharinity
of Sugar Beets by Means of Hybridization

Orig Pub : Zap. Khar'kovsk. s.-kh. in-ta, 1958, 15 (52),
127-134

Abstract : Roots of the P632 variety grown in Khar'kovskaya
Oblast' (on the Fedorov variety plot) and
roots of the U752 variety, grown on the
Uladovo-Lyulinets Selection Station (Vinnitsa
Oblast') were used for intervarietal cross
breeding. Roots of the P632 variety, grown
at the Uladovo-Lyulinets Station and in the
Fedorov variety plot, were used for intra-

Card 1/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

varietal breeding. Seeds from the roots of the B632 variety alone, grown at the Uladovo-Lyulinets Station were used as control. The cross breeding was carried out when plants left to run to seed were grown in laboratories in winter with additional electric light and then under natural field conditions. The testing of seeds grown in this manner was carried out during the usual spring sowing period with winter plants left to seed. The trials were made at the time of summer sowing (July 20th) with spring plants under field conditions. The increase in yield and the amelioration of quality of seeds was highest in the case of intervarietal cross breeding and somewhat lower for intravarietal cross breeding. An increase in the yield of

Card 2/3

USSR / Cultivated Plants. Technical.

M-5

Abs Jour : Ref Zhur - Biologiya, No 2, 1959, No. 6383

roots and of the sugar crop obtained by inter-
varietal (to a greater degree) and intra-
varietal cross breeding was also noticed. The
experiments took place at the Khar'kov Agri-
cultural Institute in 1952-1954. -- N. I.
Orlovskiy

Card 3/3

119

BULAVIN, A. N.

"Selection and Cross-Pollination of Plants of Different Training as a Method of Increasing Their Productivity." Cand Agr Sci, Khar'kov Agricultural Inst, Khar'kov, 1954. (RZhBiol, No 1, Jan 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)

SO: SUM No. 556, 24 Jun 55

3/C81/63/000/002/068/088
B160/B144

AUTHORS: Bulavin, A. S., Ryohkov, Yu. V.

TITLE: Experiments in the production of aromatized gasolines

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 2, 1963, 459, abstract
2P112 (Novosti nef. i gaz. tekhn. Neftepererabotka i nefte-
khimiya, no. 6, 1962, 15 - 17)

TEXT: Some details are given of the Omsk NPZ's experiments in producing high-octane gasolines by aromatizing the 85 - 180°C (85 - 165°C) fraction of straight-run gasoline on an Al-Mo catalyst. In this operation the dehydrocyclization reactions proceed quite vigorously, up to 23% of the paraffin hydrocarbons undergoing conversion. The average actual data on the quality of the crude and the aromatized gasoline and the optimum aromatization conditions are given. A 20% increase in the amount of aromatized gasolines over the amount produced previously is shown to raise the octane number of gasolines produced by the refinery by an average of 3 points. [Abstracter's note: Complete translation.]

Card 1/1

BULAVIN, B.P.

BULAVIN, B.P.

Layer structure of loess stratum in the region of the Sea of
Azov. Biul.MOI.P. Otd.Geol. 29 no.3:97 My-Je '54. (MLRA 7:8)
(Azov, Sea of, Region--Loess) (Loess--Azov, Sea of, Region)

BULAVIN, B. P.

USSR/Geology - Land formations

Card 1/1 Pub. 86-23/33, Nov 54

Authors : Bulavin, B. P., Engineer

Title : Hollows of the Azov region

Periodical : Priroda 43/11, 115-116, Nov 1954

Abstract : A description is given of odd depressions in the plains near the Sea of Azov that cannot be accounted for by the usual geological processes. One Russian reference, (1929).

Institution : ...

Submitted : ...

AUTHOR:

BULAVIN, B P
None given

5-3-14/37

TITLE:

Chronicle of the Hydrogeological Section (Khronika gidrogeologicheskoy sekti)

PERIODICAL:

Byulleten' Moskovskogo Obshchestva Ispytateley Prirody, Otdel Geologicheskii, 1957, No 3, pp 159-160 (USSR)

ABSTRACT:

The following reports were delivered at the meeting of the Hydrogeological Section, Moscow Society of Naturalists, from 14 February to 21 March 1957: I.G. Glukhov on "Loesses of Water Origin in Some Regions of Central Asia"; Yu.V. Mukhin on the "Influence of Natural Fluctuations of the Underground Water Level on the Discharge of Wells and Other Water Collectors"; V.A. Shemshurin on "Hydrogeological Calculation of the Underground Discharge of the Yakh-Su River (Central Asia) by Electric Survey Data"; V.V. Ivanov on "Vertical Hydrochemical Zonation in Regions of Active Volcanos"; B.P. Bulavin on "Problem of Loessial Soil Sagging in Connection with Observations on the Lower-Don Canal", and A.S. Ryabchenkov on the "Mineralogical and Petrographic Composition and Origin of Loessial Rocks of the Donetsk Ridge".
Library of Congress

AVAILABLE:
Card 1/1

BULAVIN, B. P. Cand Geol-Min Sci -- (diss) "The ^{features} origin and the geological engineering ~~characteristics~~ of loess rocks in the southern part of European USSR." Mos, 1958. 26 pp. (Mos State Univ im M.V. Lomonosov. Geol Faculty). 110 copies.
(KL, 8-58, 104)

-10-

AUTHOR: Bulavin, B.P. SCW/5-33-1-12/25

TITLE: Landslides and Collapses of Earth on the Azov Seashore
(Opolzni i obrusheniya zemlyanykh mass na Azovskom poberezh -
ye)

PERIODICAL: Byulleten' Moskovskogo obshchestva ispytateley prirody, Ot-
del geologicheskoy, 1958, Vol 33, Nr 1, pp 123-126 (USSR)

ABSTRACT: The author describes the coastal line of the Sea of Azov
between the town of Osipenko and the Obitechnaya Sand Bar,
30 km long, where landslides and collapses of earth masses
often occur. The lower third of the coastal cliff of the
loess plateau adjoining the sea is formed of bedded sands,
and the rest is of argillaceous soil. Landslides usually
occur in the upper part of the cliff, argillaceous layers
sliding on the wet sands and forming multistoried terraces.
In another place, the cliff collapses mainly under the de-
structive action of the sea. According to the author, these
phenomena are a result of uninterrupted advance of the sea

Card 1/2

• Landslides and Collapses of Earth on the Azov Seashore

004/5-33-1-12/25

caused by the new tectonic movements of a negative sign.
The following geologists are mentioned in the article:
K.I. Lisitsyn, V.A. Khokhlovkina, P.I. Lutskiy, V.V. Bogachev, I.V. Popov and N.A. Sokolov. There are 7 Soviet references.

Card 2/2

BULAVIN, B.P.

Fossil soils of the Azov Sea coast [with summary in English].
Pochvovedenie no.1:126-128 Ja '59. (MIRA 12:2)

1. Proyektnyy institut, Moskva.
(Azov region--Geology)

BULAVIN, B.P.

Prospects for geological investigations of shores of the Sea of
Azov. Biul.MOIP.Otd.geol. 34 no.4:166-167 JI-Ag '59.
(Azov, Sea of--Coasts) (MIRA 13:8)

BUJAVIN, B.P.

Visual estimation of the sagging properties of loess soils. Osn.,
fund. 1 mekh. grun. 3 no.4:27 '61. (MIRA 14:8)
(Loess)

BULAVIN, B.P.

Principles of the environmental and genetical division of loess
in the European part of the U.S.S.R. Biul.MOIP.Otd.geol. 36
no.6:49-61. M-D '61. (MIRA 15:7)

(Loess)

BULAVIN, B.P., kand.geologo-mineralogicheskikh nauk (Moskva)

Landslides along the Black Sea in the Caucasus. Priroda 50 no.6:
59 Je '61. (MIRA 14:5)
(Black Sea region--Landslides)

BULAVIN, I. A.

I. A. Bulavin, Candidate in Technical Sciences, and P. D. Gonchar, Spravochnik po gruboy keramike [Handbook of Course Ceramics], Rosgiznestprom, 24 sheets.

The booklet offers reference material on silicates, fuel, and furnaces, including diagrams of technical designs, methods of making repairs on the furnace, thermotechnical control, and describes the operation of kilns and the supply and working of raw material. The booklet also gives the bases of production of bricks, hollow blocks, tiles, and glazed tiles.

The booklet is intended for technical engineering workers and foremen.

SO: U-6472, 12 Nov 1954

BULAVIN, I.A., kandidat tekhnicheskikh nauk, dotsent.

Modern equipment for semidry pressing of ceramic products. Mekh.
stroi. 4 no.4:12-16 Ap '47. (MLRA 9:3)
(Ceramics)

BULAVIN, I.A.

Bulavin, I.A. "The ceramic industry in the United States," in symposium:
Syr'yevyye resursy tonkokeram. prom-sti SSSR i puti ikh ispol'zovaniya,
Moscow-Leningrad, 1948, p. 33-41

SO: U-2888, Letopis Zhurnal'nykh Statey, No. 1, 1949

BULAVIN, I. A. Docent

PA 22/49T32

USSR/Engineering
Ceramic Materials
Construction Materials

Oct 48

"Fundamental Methods and Technological Systems
for the Production of Ceramic Construction
Materials," Docent I. A. Bulavin, Cand Tech Sci,
6½ pp

"Mekh Stroi" No 10

General discussion of subject, with three
tables, five photographs of machines, and eight
schematic diagrams showing production systems.

22/49T32

BULAVIN, I. A.

Author: Bulavin, I. A.

Title: The manufacturing of ceramic plates. The second improved edition,
(Proizvodstvo keramicheskikh plitok.) 255 p.

City: Moscow

Publisher: The State Printing House of Literature on Construction Materials.

Date: 1949

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 2, No. 12, 739 p.

Bulavin, I. A.

Author: Bulavin, I. A.

Title: Machines for the manufacture of thin ceramics. (Mashiny dlia proizvodstva tonkoi keramiki.) 197 p.

City: Moscow

Publisher:

Substitution: State Scientific and Technical Publication of the Machine Construction Literature

Date: 1950

Available: Library of Congress

Source: Monthly List of Russian Accessions, Vol. 4, No. 3, June, 1951

Bulavin, I. A.

Mashiny i Apparaty Silikatnoy Promyshlennosti. (Machines and Apparatus for the Silicate Industry, By) M. Ya. Sapozhnikov i I. A. Bulavin. Moskva, Promstroyizdat, 1950-

V.

"Literatura": V. I, P. (484)

V. 2, By I. A. Bulavin i M. Ya. Sapozhnikov, 1951.

Lib. Has: V. 1

V. 2

SO: N/5

741.97

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Reviewed in Steklo i Keram., 8, (2), 23, 1951.

BULAVIN, I. A.

PHASE X

TREASURE ISLAND BIBLIOGRAPHICAL REPORT AID 797 - X

BOOK

Call No.: TP867.B9

Authors: BUDNIKOV, P. P.; BEREZHNOY, A. S.; BULAVIN, I. A.; GRISSIK, B. M.;
KUKOLEV, G. V.; POLUBOYARINOV, D. N.

Full Title: MANUFACTURE OF CERAMICS AND REFRACTORY MATERIALS

Transliterated Title: Tekhnologiya keramiki i ogneuporov

PUBLISHING DATA

Originating Agency: None

Publishing House: State Publishing House of Literature on Construction Materials

Date: 1950

No. pp.: 575

No. of copies: 4,000

Editorial Staff

Editor: P. P. Budnikov, Member of the Academy of Sciences, Ukrainian SSR

PURPOSE AND EVALUATION: This manual is approved as a textbook for institutes of chemical technology and of construction materials and for students specializing in the technology of silicates. The book compares favorably with its American counterparts e. g., volume III of Ceramics by Ed. P. McNamara (State College, Pa., 1939) and Factory Design and Equipment and Manufacture of Clay Wares by T. J. Garve (N.Y., 1929). All phases of manufacturing are extensively covered and the book can be used as a reference book.

BULAVIN, I. A.

"Machines for the production of thin ceramics." I. A. Bulvain.
Reviewed by Eng. G. D. Levitskiy. Mekh. stroi. 9, No 6, 1952.

BULAVIN, I.A.; SILENIK, S.G.

[Equipment for manufacturing building materials] Oborudovanie dlia
proizvodstva stroitel'nykh materialov. M. Mashgiz, 1954.
(Building materials) (MIRA 8:3)

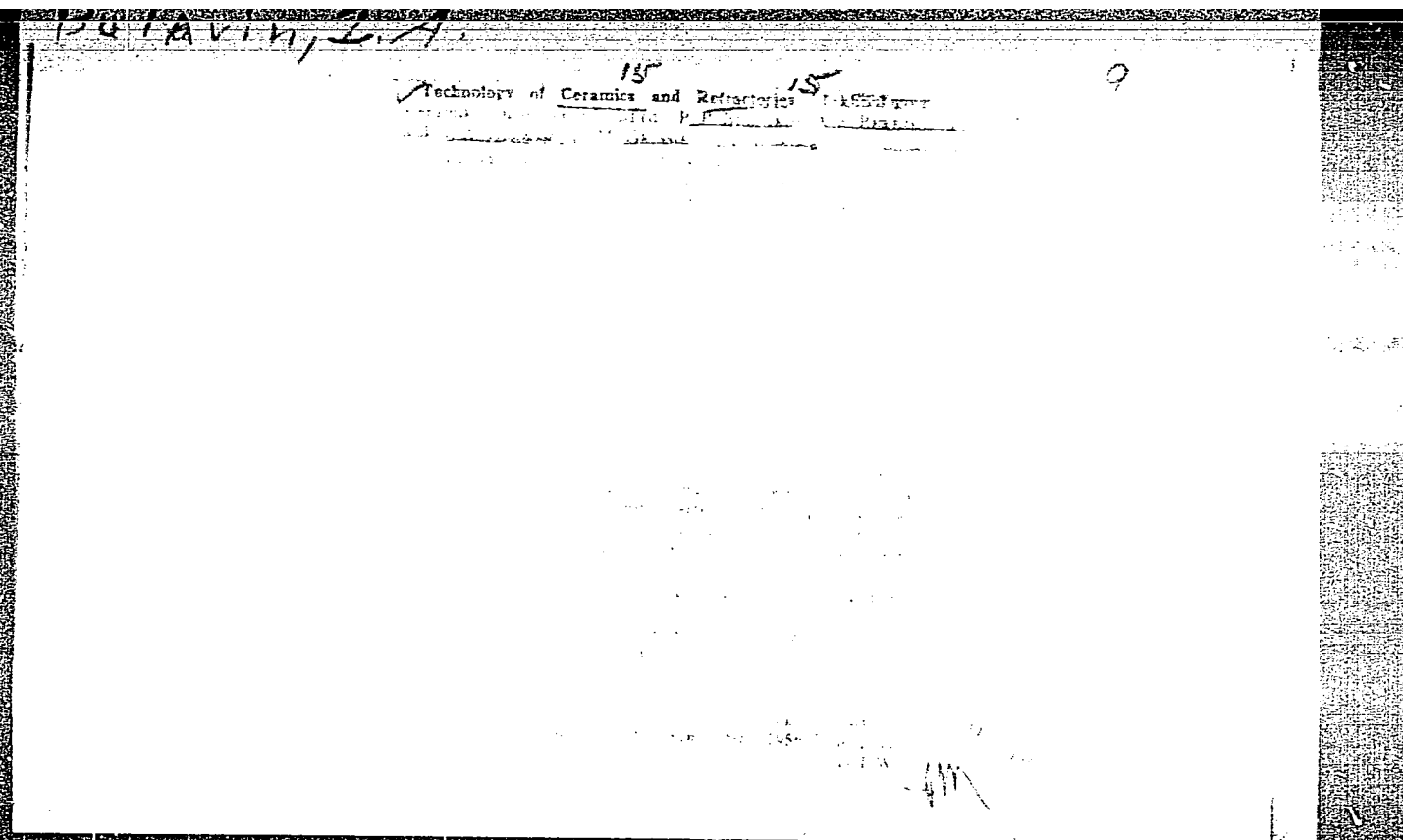
BULAVIN, I.A.; GONCHAR, P.D.; NOSOVA, T.A., redaktor; MEL'NIKOVA, N.V.,
tekhnicheskiiy redaktor.

[Brief manual on brick and tile production] Kratkii spravochnik po
proizvodstvu kirpicha i cherepitsy. Moskva, Gos. izd-vo mestnoi i
toplivnoi promyshl. RSFSR, 1954. 431 p. (MIRA 7:12)
(Brick industry) (Tiles)

BULAVIN, I.; SZAFOSZNYIKOV, M.

"Machines and Equipment in the Silicate Industry from Russians", P. 128,
(EPITOANYAG, Vol. 6, No. 4, April 1954, Budapest, Hungary)

SO: Monthly List of East European Accessions (EEAL), LC, Vol. 4, No.3,
March 1955, Uncl.



1. Bulavin, Ivan Anisimovich

SAPOZHNIKOV, Matvey Yakovlevich; BULAVIN, Ivan Anisimovich; KANTOROVICH, Z.B., professor, doktor tekhnicheskikh nauk, retsenzent; ZUBKOV, V.A., dotsent, kandidat tekhnicheskikh nauk, retsenzent; BASSKAZOV, N.I., kandidat tekhnicheskikh nauk, dotsent, retsenzent; SIDENKO, P.M., kandidat tekhnicheskikh nauk, retsenzent; KOZULIN, N.A., professor, doktor tekhnicheskikh nauk, retsenzent; STOLYAROV, S.A., redaktor; GURVICH, E.A., redaktor; LYUDKOVSKAYA, N.I., tekhnicheskiiy redaktor.

[Machines and apparatus used in the silicate industry] Mashiny i apparaty silikatnei promyshlennosti; obshchii kurs. Izd. 2-oe, dop. i perer. Moskva, Gos. izd-vo lit-ry po stroitel'nyim materialam, 1955. 423 p. (MLRA 9:5)

(Clay industries)

12-11-1955 2111
BUDNIKOV, Petr Petrovich; redaktor; BEREZHNOY, Anatoliy Semenovich;
BULAVIN, Ivan Anisimovich; GRISSEK, Boris Mikhaylovich;
KUKOLEV, Grigoriy Vladimirovich; POLYBOYARINOV, Dmitriy
Nikolayevich; AVGUSTINIK, A.I., doktor tekhnicheskikh nauk,
professor, retsenzent; GLEZAROVA, I.L., redaktor; PANOVA, L.Ya.,
tekhnicheskij redaktor.

[Technology of ceramics and refractory materials] Tekhnologiya
keramiki i ogneporov. Pod obshchei red. P.P. Budnikova. Izd.
2-e, perer. Moskva, Gos.izd-vo lit-ry po stroit. materialam,
1955. 698 p. (MLRA 8:12)

1. Deystvitel'nyy chlen AN USSR. 2. Chlen korrespondent AN SSSR.
(Ceramic industries) (Refractory materials)

BULAVIN, I.A.; GONCHAR, P.D.

Reference book for workers of the brick industry ("Short reference
book on brick and tile production." I.A.Bulavin, P.D.Gonchar.
Reviewed by M.Rogovoi.) Stroimaterialy i konstr. no.12:30-32 D
'55. (Brickmaking) (MLRA 9:7)

27
During of churning with the addition of talc and TLT
proportion of the added water

PM fra
MT

BULAVIN, I.A.

USSR /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31472

Author : Bulavin I.A.

Title : Solubility of Alpha- Al_2O_3 in Flux on Firing of
Corundum Ceramics

Orig Pub: Sb. nauch. rabot po khimii i tekhnol. silikatov.
M., Promstroyizdat, 1956, 258-263

Abstract: Study of the solubility of Al_2O_3 in melts of the
ternary systems $\text{BaO} - \text{CaO} - \text{SiO}_2$, $\text{BaO} - \text{MgO} -$
 SiO_2 , $\text{BaO} - \text{SrO} - \text{SiO}_2$, which constitute the
basis of vitreous phase of corundum-, clinoen-
statite- and other varieties of technical ceramics.
Melt mixtures were prepared by fritting of chemi-

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USSR /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour: Referat Zhur - Khimiya, No 9, 1957, 31472

cally pure carbonate salts and pure finely-ground quartz, washed with HCl and having a particle size of less than 60μ . Additions of electro-corundum (containing 98.5% Al_2O_3) were incorporated in amounts of 10-50%. Primary fusion of the frits and secondary fusion with added Al_2O_3 were carried out in a Silit furnace, at $1450-1550^\circ$, for 7 hours, the cooling -- either in the furnace or in water. Microscopic and roentgenographic methods were used to determine the amount of Al_2O_3 saturating the vitreous phase under different conditions of firing and cooling. In fluxes of the BaO-CaO- SiO_2 system, 10-35% Al_2O_3 can be dissolved without separation of corundum crystals on slow cooling; in the BaO-

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USSR /Chemical Technology. Chemical Products
and Their Application

I-12

Silicates. Glass. Ceramics. Binders.

Abs Jour Referat Zhur - Khimiya, No 9, 1957, 31472

MgO-SiO₂ system, a region of vitrous phases has been delineated, which undergo crystallization with a 5-10% content of Al₂O₃. Al₂O₃ is little soluble in flux of the BaO-MgO-SiO₂ and of the BaO-SrO-SiO₂ system.

Card 3/3

BULAVIN, I.A.

Relationship between the porosity of ceramic materials and molding
methods. Trudy MKHTI no. 24:124-132 '57. (MIRA 11:6)
(Ceramic materials)

BULAVIN, I.A.

Sintering of ceramic materials used as electric insulators and the
manufacture of products with minimum porosity. Trudy MKHTI no.24:
133-144 '57. (MIRA 11:6)
(Ceramic industries) (Electric insulators and insulation)

SOV / 137-58-7-14116

Translation from: Referativnyy zhurnal, Metallurgiya, 1958, Nr 7, p 20 (USSR)

AUTHOR: Bulavin, I. A.

TITLE: An Investigation of the Phase Composition of Silicate Melts
(Issledovaniye fazovogo sostava silikatnykh rasplavov)

PERIODICAL: Tr. Mosk. khim. -tekhrol. in-ta im. D. I. Mendeleyeva,
1957, Nr 24, pp 324-326

ABSTRACT: A description is adduced of a device for heating ceramic specimens to 2000°C followed by rapid cooling thereof. This is necessary to avoid changes in phase composition occurring in slow cooling due to the segregation of a crystalline phase from a vitreous one. The small specimens first fused are placed in Mo or Ta boats with covers, heated to 2000°, and fused in vacuum at the given temperature. The melt is cooled in 3-5 sec by a stream of cold inert gas delivered into the chamber of the device.

1. Silicates--Processing 2. Silicates--Phase studies

Ya. G.

Card 1/1

AUTHORS: Budnikov, P. P., Bulavin, I. A., Zakharov, I. A. SOV/156-58-1-41/46

TITLE: Liquid Sintering of Corundum Ceramics (O zhidkostnom spekanii korundovoy keramiki)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya tekhnologiya, 1958, Nr 1, pp. 168 - 172 (USSR)

ABSTRACT: There are 2 ways of sintering of ceramic substances: a) without participation of a liquid phase, b) liquid sintering. In the case of a), solidification of the ceramic substance is due to a granular recrystallization of the powder. In the case of b), two ways must be distinguished: 1) The quantity of liquid phase is sufficient for filling the pores left after contraction of the crystalline until these have reached contact, and 2) the melt will not be sufficient, and the remaining pores will be filled due partly to recrystallization of the crystalline phases. The positive part played by the liquid phase in sintering of ceramic materials is emphasized by many research workers (Refs 1-5). A survey of literature is given next. The authors have tried to determine how

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Liquid Sintering of Corundum Ceramics

SOV/156-58-1-41/46

sintering of corundum ceramics depends on the composition and quantity of the liquid phase formed in sintering, i.e., when its dissolving action upon the crystalline phase is considered. The melt that was to form the liquid phase of the ceramics was taken from the systems $\text{CaO-SiO}_2\text{-Al}_2\text{O}_3$ and CaO-BaO-SiO_2 (Table 1). Figure 1 shows the solubility of the corundum in the melt. Investigations have shown that sintering rates of corundum material with various melts will depend on the viscosity of the melt and on the change of the viscosity: surface tension ratio due to further dissolution of Al_2O_3 in the melt. For smaller quantities of the melt introduced, the sintering process may in part take place at the cost of recrystallization of the crystalline phase. In this case the time required for completing the shrinkage will be longer for a smaller quantity of the melt being formed, and for a lower sintering temperature. The authors prove that for producing sintered corundum ceramics of minimum porosity a greatest possible quantity of liquid phase is necessary so that it will be sufficient for filling all the holes. There are 4 figures,

Card 2/3

Liquid Sintering of Corundum Ceramics

SOV/156-58-1-41/46

1 table, and 6 Soviet references.

ASSOCIATION: Kafedra obshchey tekhnologii silikatov Moskovskogo khimiko-
tekhnologicheskogo instituta im.D.I.Mendeleyeva (Chair
of General Silicate Technology of the Chemical Engineering
Institute imeni D.I.Mendelejev, Moscow)

SUBMITTED: September 26, 1957

Card 3/3

AUTHORS: Budnikov, P. P., Bulavin, I. A.,
Zakharov, I.A.

SOV/ 156-58-3-45/52

TITLE: On the Effect of the Phase Composition on the Mechanical
Strength of Corundum Ceramics (O vliyaniy fazovogo sostava na
mekhanicheskuyu prochnost' korundovoy keramiki)

PERIODICAL: Nauchnyye doklady vysshey shkoly, Khimiya i khimicheskaya
tekhnologiya, 1958, Nr 3, pp. 576 - 579 (USSR)

ABSTRACT: The effect of the phase composition on the mechanical strength
of corundum ceramics, especially in regard to porosity, was
investigated. The strength of corundum ceramic products depends
on the glass phase. With an increase in the amount of the glass
phase (more than 40%) the porosity increases, which reduces the
strength of the body. The samples were also investigated with
respect to their microhardness, and the phase composition was
determined by microphotography. The microhardness of corundum
ceramics amounts to 2580 kg/mm²; that of the glass phase
fluctuates between 945 and 1450 kg/mm². The microhardness of the
glass phase depends on the Al₂O₃ content. A glass phase of
about 80% Al₂O₃ has a microhardness of 1450 kg/mm². The mechanical

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On the Effect of the Phase Composition on the
Mechanical Strength of Corundum Ceramics

SOV/156 58-3-45/52

strength of the ceramic bodies increases linearly according to the Al_2O_3 content in the glass phase. The dependence of the strength and the porosity on changes in the content the glass phase was investigated. Also the influence of other oxides, as e.g. CaO , BaO and FeO_2 , on the strength of corundum ceramics was investigated. When present in smaller amounts these oxides do not influence the strength. There are 4 figures and 10 references, 9 of which are Soviet.

ASSOCIATION:

Kafedra obshchey tekhnologii silikatov Moskovskogo
khimiko-tekhnologicheskogo instituta im.D.I.Mendeleyeva
(Chair for the General Technology of Silicates at the Moscow
Chemical and Technological Institute imeni D.I.Mendeleyev)

SUBMITTED:

February 11, 1958

Card 2/2

BULAVIN, Ivan Anisimovich; SILENOK, Sergey Georgiyevich; TRET'YAKOV,
I.M., inzh., retsenzent; KRIMERMAN, M.N., inzh., red.;
DANILOV, L.N., red.izd-va; SOKOLOVA, T.F., tekhn.red.

[Machines for making building materials] Mashiny dlia proiz-
vodstva stroitel'nykh materialov. Izd.2., perer. Moskva, Gos.
nauchno-tekhn.izd-vo mashinostroit.lit-ry, 1959. 464 p.
(MIRA 13:11)

(Building materials industry--Equipment and supplies)

BULAVIN, I. A., Doc Tech Sci -- (diss) "Investigation of the agglutination of corundum ceramics with the involvement of a liquid phase." Moscow, 1960. 38 pp; (Ministry of Higher and Secondary Specialist Education RSFSR, Moscow Order of Lenin Chemical and Technological Institute im D. I. Mendeleyev); 200 copies; price not given; list of authors' works on pp 37-38 (20 entries); (KL, 19-60, 132)

BULAVIN, I.A., kand.tekhn.nauk

Modern machines and equipment of the ceramic industry. Zhur.
VKHO 5 no. 2:209-213 '60. (MIRA 14:2)
(Ceramic industries--Equipment and supplies)

15. 2210
~~5(1), 5(2)~~
AUTHOR:

Bulavin, I. A.

67960

SOV/20-130-1-38/69

TITLE: Viscosity Determinations in Silicate Melts

PERIODICAL: Doklady Akademii nauk SSSR, 1960, Vol 130, Nr 1, pp 133-136 (USSR)

ABSTRACT: The viscosity of the liquid phase during the sintering of electroinsulating ceramics is one of the most important factors determining the kinetics of the process, and considerably influences the properties of the products. The author met with difficulties in choosing the investigation method and apparatus. He chose the universally known method of coaxial cylinders (Ref 7). The author developed and realized the construction of a rotary vacuum viscosimeter for high temperatures. Molybdenum tanks and cylinders proved to be suitable for temperatures between 1250-2000°. Figure 1 shows the viscosimeter. For viscosity determinations within a wide range, the author developed a device with stepwise switching-in of 2 wire spirals (2 variants). Further, the author deals with the viscosity of melts of the system $\text{CaO-BaO-Al}_2\text{O}_3\text{-SiO}_2$ during the sintering of corundum ceramics. Synthetic fluxes were introduced into

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Viscosity Determinations in Silicate Melts

67960

SOV/20-130-1-38/69

corundum ceramics in which the crystalline phase α - Al_2O_3 dissolved during sintering. The temperatures of the liquidus of melts CaO-BaO-SiO_2 were determined previously (Refs 8, 9) for compositions with varying Al_2O_3 content by means of the solubility of Al_2O_3 . The liquidus temperature of the liquid phase consisting of a 3-component flux and 20% by weight of Al_2O_3 4 represented the sintering temperature of the corresponding series of ceramic samples. Table 1 shows the composition of the fluxes used, their liquidus points, and the sintering temperature of the ceramics if the liquid phase is saturated with 20% of Al_2O_3 . By comparison of the viscosity determination results of the 3-component initial melts (Fig 2) and the liquid phases resulting by saturation with Al_2O_3 at the sintering temperatures mentioned (Figs 3 and 4), the author arrives at the following conclusions: Above the liquidus temperature, the 3-component melts of the system CaO-BaO-SiO_2 have a very low viscosity. It differs by several orders of magnitude from the viscosity of the

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Viscosity Determinations in Silicate Melts

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liquid feldspar phases of commercial porcelain, and approaches that of some melts of the system $\text{CaO-Al}_2\text{O}_3\text{-SiO}_2$ at 1600° (Ref 10).

Liquid phases with a high Al_2O_3 content also have a low viscosity of about 10 poise. In proportion to the separation of a new crystalline phase, the viscosity of these melts rises rapidly. The use of melts of the system $\text{CaO-BaO-Al}_2\text{O}_3\text{-SiO}_2$ in the liquid phase ensures a rapid consolidation of the sintering system. The new, finely disperse, crystalline phases are separated under corresponding thermodynamic conditions, and increase the strength of the ceramics sintered. There are 4 figures, 1 table, and 10 references, 9 of which are Soviet.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut im. D. I. Mendeleyeva
(Moscow Institute of Chemical Technology imeni D. I. Mendeleyev)

PRESENTED: August 2, 1959 by S. I. Vol'fkovich, Academician

SUBMITTED: July 20, 1959

Card 3/3

PHASE I BOOK EXPLOITATION

SOV/6324

Bulavin, Ivan Anisimovich, Doctor of Technical Sciences

Mashiny dlya proizvodstva tonkoy keramiki (Machines for the
Production of Fine Ceramics) 2d ed., rev. and enl. Moscow,
Mashgiz, 1962. 410 p. Errata slip inserted. 2500 copies printed.

Reviewer: G. D. Levitskiy, Engineer; Ed. of Publishing House:
K. G. Uspenskiy; Tech. Ed.: B. I. Model'; Managing Ed. for
Literature on Heat Energy, Metallurgy, Highway Construction,
and Hoisting and Transporting Machinery Construction:
N. M. Zyuzin.

PURPOSE: This book is intended for engineers and technicians
working in plants and design shops. It can also be used as a
manual in training specialists for the ceramics industry.

Card 1/5

Machines for the Production (Cont.)

SOV/6324

COVERAGE: The revised edition includes new techniques and information on the mechanization and automation of production based on progress in leading Soviet and foreign plants. There are 21 references: 19 Soviet and 2 English.

TABLE OF CONTENTS [Abridged]:

Preface

PART I. MACHINES FOR THE PROCESSING OF
RAW MATERIALS AND FOR THE
PREPARATION OF CERAMIC BODIES

Ch. I. Methods and Flow Diagram for the Treatment
of Raw Materials and for the Preparation of
Ceramic Bodies and Glasses

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Card 2/5

S/833/62/000/000/004/004
D034/D114

AUTHOR: Bulavin, I.A., Doctor of Technical Sciences

TITLE: Physicochemical processes in sintering fine ceramics with the participation of the liquid phase

SOURCE: Voprosy razvitiya stekol'noy i farforo-fayansovoy promyshlennosti. Ed. by F.D. Ovcharenko. Kiyev, Izd-vo AN UkrSSR, 1962, 224-235 ✓

TEXT: Samples of corundum ceramics were used to investigate the interaction of the crystalline and liquid phases during a sintering process in which the liquid phase participates. A method was prepared for elucidating the role of the liquid phase in the kinetics of the process. The optimum amount of the liquid phase indispensable for obtaining wholly sintered corundum ceramics is to be determined by the direct relationship between the volume of the liquid phase, the packing density of the crystalline phase, and the volume of the closed pores in the sintered ceramics. Normally, these phenomena are superposed on each other. The main factor deter-

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Physicochemical processes in ...

S/833/62/000/000/004/004
D034/D114

mining the compacting velocity of the sintering system is the correlation between the surface tension and the viscosity of the liquid phase. There are 7 figures and 1 table.

ASSOCIATION: Moskovskiy khimiko-tekhnologicheskii institut (Moscow Institute of Chemical Technology) ✓✓

Card 2/2

BULAVIN, Ivan Anisimovich, doktor tekhn. nauk; LEVITSKIY, G.D., inzh.,
retsenzent; USPENSKIY, K.G., red.izd-va; MODEL', B.I., tekhn.
red.

[Machinery for the manufacture of fine ceramic articles] Ma-
shiny dlia proizvodstva tonkoi keramiki. Izd.2., dop. i perer.
Moskva, Mashgiz, 1962. 410 p. (MIRA 15:3)
(Ceramic industries—Equipment and supplies)

BULAVIN, I. A.

PHASE I BOOK EXPLOITATION

SOV/6202

Budnikov, P. P., Academician, Academy of Sciences UkrSSR, Corresponding Member, Academy of Sciences USSR, A. S. Berezhnoy, I. A. Bulavin, G. P. Kalliga, G. V. Kukolev, and D. N. Poluboyarinov.

Tekhnologiya keramiki i ogneporov (Technology of Ceramics and Refractory Materials). 3d ed., rev. and enl. Moscow, Gosstroyizdat, 1962. 707 p. Errata slip inserted. 15,000 copies printed.

Ed. (Title page): P. P. Budnikov; Ed. of Publishing House: N. A. Gomozova; Tech. Ed.: G. D. Naumova.

PURPOSE: This book is a textbook intended for students taking courses in the technology of silicates at institutions of higher education.

COVERAGE: The book describes the physicochemical and mechanical properties of various ceramic and refractory products, including cermets, pure refractory oxides, glazes, aramic pigments, porcelain, and faience. The raw materials and methods of manufacturing ceramic

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and refractory products are reviewed. There are 167 references, mostly Soviet.

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Ferrous metallurgy in the Federal People's Republic of Yugoslavia.
Metallurg 7 no.12:32-34 D '62. (MIRA 15:12)

1. Institut geografii AN SSSR.
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